Docket No. AUS920010489US1

ABSTRACT OF THE DISCLOSURE

IP DATAGRAM OVER MULTIPLE QUEUE PAIRS

5   An apparatus and method for an advanced multiplexing technique to allow a single host to support multiple Internet Protocol (IP) queue pairs with little or no overhead are provided. With the apparatus and method, after a queue pair is created, Internet Protocol filter

10   attributes and values are set up for the queue pair through value added features to the standard InfiniBand "QP Modify" method. The IP filters are used during normal operations to determine which queue pair is associated with an incoming packet. During normal

15   operations, when a channel adapter receives an Internet Protocol (IP) over InfiniBand (IB) packet, it uses one or more of several fields in the packet's transport and/or network header to determine which queue pair shall receive the packet. Thus, the host channel adapter uses

20   the IP filters to route incoming packets to the appropriate queue pair and thereby allow more than one queue pair to be used to support IP.